In the United States Patent and Trademark Office

Date: November 21, 2006

In re Application of: Joachim Hagmeier et al   *Filed:* February 6, 2002

For: A Method, Computer System and Computer Program Product for Processing Customer Loyalty Data

Serial Number: 10/068,369

Art Unit: 3622   *Examiner:* Duran, Arthur D.

Appellant's Brief (37 CFR 41.37) (Twice Amended)

Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Introductory Comments

This brief is filed in support of the previously filed Notice of Appeal, filed in this case on April 10, 2006. The appeal is from a Final rejection dated December 15, 2005. Please charge the required fee for the filing of this Brief against assignee's Deposit Account 09-461.

This brief is submitted as a response to a November 6 Office action indicating the brief was considered non-compliant as not including adequate references to the specification and drawings when describing the subject matter of claim 6..

This Brief is considered timely filed.

Real Party in Interest (37 CFR 41.37(I))

The real party in interest in this appeal is International Business Machines Corporation, which is the assignee of the entire right, title, and interest in the above-identified patent application.

Related Appeals and Interferences (37 CFR 41.37(ii))

With respect to other prior or pending appeals, interferences, or judicial proceedings that are related to, will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such prior or pending appeals, interferences, or judicial proceedings known to Appellants, Appellant's legal representative, or assignee.

Status of Claims (37 CFR 41.37(iii))

1. Total number of claims in application

There are nine claims pending. Three (1, 6, and 9) are independent claims. The remainder are dependent claims.

2. Status of all claims in application

- Claims canceled: 2
- Claims withdrawn from consideration but not canceled: None
- Claims pending: 1, 3-10.
- Claims allowed: None
- Claims rejected 1, 3-10.

Status of Amendments (37 CFR 41.37(iv))

All amendments have been entered in this case. No amendments were made to the claims after the Final Office action.

Summary of Claimed Subject Matter (37 CFR 41.37(v))

The invention generally relates to systems for processing customer loyalty data in a commercial environment and particularly relates to a distributed computer system having back-end systems and a point-of-sale terminal at the front-end for capturing customer data.

In prior art systems, loyalty program rules were stored in only back-end or central computers. User data was also stored in such back-end systems. In some systems, user data may also have been stored in so-called "smart cards" carried by the users. Applicants' system includes such a back-end computer. However, unlike the prior art, Applicants' system also includes a front-end computer having a database for storing the loyalty program rules and user data. The front-end computer also includes a spreadsheet engine for processing user transaction data in accordance with the locally-stored copy of the loyalty program rules and a communications link for maintaining synchronization between the locally stored copy of the loyalty program rules and the copy remotely stored in the back-end computer.

Claim 1, an independent claim, is directed to a computer system. Claims 3-5 depend, directly or indirectly from claim 1. Claim 6, an independent claim, is directed to a point of sale computer. Claim 7 depends directly from claim 6. Claim 8 depends from either of claims 6 and 7. Claim 9, an independent claim, is directed to a method for performing a transaction. Claim 10 depends directly from claim 9. None of the apparatus claims employs means plus function language.

Claims 1 and 3-5 are directed to the computer system. Each of the elements identified below is described in the specification in paragraphs [023] through [032]. Referring first to claim 1, the computer system is defined as having three elements: (Figure 6) a back-end computer (element 69) with a first database (element 71) for storing loyalty rules (element 72) and user data (element 73); (Figure 7) a point of sale terminal (element 75) having a front-end computer (element 77) including a second database for storing loyalty rules (element 80) and user data (element 81), and a spreadsheet engine (element 83) for processing user transaction data in accordance with the loyalty rules; and (Figure 6) a communication link (element 76) for connecting the front end and back end computers to enable synchronization of the first and second databases.

Claim 3 specifies that the point-of-sale terminal recited in claim 1 includes a computer program routine (Figure 7, element 84) for triggering operation of the spreadsheet engine (element 83) and a payment application program (element 85). Claim 4 narrows the scope of claim 3 by specifying that the point-of-sale terminal (element 78) and front-end computer (element77) are integrated into one device (element 75) having a common display unit.

Claim 5 adds two elements to the computer system. The first element is a marketing computer (Figure 6, element 61) having a third database (element 62) for receiving and storing loyalty rules (element 63) and test data (elements 64 and 65) and a second spreadsheet engine (67) with a graphical user interface (element 68). The second element is a communication link (element 70) connecting the marketing computer to the back-end computer for updating the loyalty rules stored in the database in the back-end computer.

Claim 6 is directed to the point of sale computer (element 75) that is one of the components in the computer system described above. Point of sale computer (element 75) is illustrated in both Figures 6 and 7 and is discussed generally in Paragraphs 28-30 of the

specification. The claim specifically recites a front-end computer (element 77) (shown generally in Figure 6 and in more detail in Figure 7. The front-end computer (element 77) includes a database (element 79) containing loyalty rules (element 80) and user data (element 81), all shown in Figure 7 and discussed in Paragraph 30. Claim 6 further recites a spreadsheet engine (element 83) shown in Figure 7 and also discused in Paragraph 30. Claim 7 specifies that the front end computer (element 77) included within the point of sale computer includes a communication module. Claim 8 is multiply dependent upon claims 6 and 7 and specifies that the point of sale terminal further includes the previously-mentioned computer program routine for triggering operation of the spreadsheet engine and a payment application program.

Claim 9 is directed to a method for performing a transaction comprising the steps of inputting user-identifying data (Figure 8, operation 1)and transaction data (operation 2) into the front-end computer, processing the transaction data (operation 3) in accordance with a loyalty rule and synchronizing (operation 4) the front-end computer with the back-end computer. Claim 10 adds two additional steps to the method recited in claim 9; namely, determining the price to be paid by the customer in accordance with the loyalty rule (operation 5) and displaying the price on the point-of-sale terminal. The method is described in the specification in paragraphs [033] - [036].

Grounds of Rejection to be Reviewed on Appeal (37 CFR 41.37(vi))

Claims 1 and 3-10 were rejected under 35 USC (103(a) as being obvious over Wong (6,119,933) in view of Kawan (6,889,198).

Argument (37 CFR 41.37(vii))

The teachings of Wang and Kawan do not make the subject matter of claims 1 and 3-10 obvious to one of ordinary skill in the art.

The *Wong* patent discloses a system for customer loyalty and marketing analysis. In the *Wong* system, customer loyalty information is described only as being stored in a central data warehouse. See Column 2, lines 3-15, of the *Wong* specification where it is stated:

> "... *the system keeps track of customer frequency award points in order to encourage customers to participate in the system. A mechanism is provided for customers to directly interact with this customer loyalty system .... According to one embodiment, this interface is provided via the World Wide Web over the Internet wherein customers are allowed to interact directly with aspects of the data warehouse....*"

Notwithstanding the "According to one embodiment" language, there is nothing in the *Wong* specification to suggest that a customer may interact with the customer loyalty system in any way other than over an interface "provided via the World Wed Web over the Internet".

While the *Wong* specification does indicate that a point of sale system may include a local database, the only function that database appears to be used for is to identify the customer. See *Wong*, column 1, lines 31-42.

Earlier Office actions have expressly admitted that *Wong* lacks any showing of "a front-end computer having a second database for storing loyalty rules and ... a spreadsheet engine for processing user transaction data in accordance with the loyalty rules" or of a "communication link ... for synchronization...." of databases and have expressly acknowledged the Wong reference had been overcome. US Patent 6,889,198 - Kawan was cited as purported overcoming Wong's acknowledged deficiencies.

For *Kawan* to be a decent secondary reference in a 35 USC 103(a) rejection, it would have to show the front-end computer and the synchronizing communications link the earlier Office actions explicity acknowledge are missing from the *Wong* reference. It doesn't.

What the *Kawan* patent actually shows is the use of a so-called smart card to store a customer loyalty program application resident on the smart card microcomputer. See Col 2, lines 19-22, for just one of the many *Kawan* statements that makes it clear the loyalty program application is resident on a smart card carried by a customer, not on a point-of-sale or merchant terminal with which the smart card may be used.

The *Kawan* reference clearly does not teach including a front-end computer device in a point-of-sale terminal to provide point-of-sale customer loyalty program processing capability. Numerous references in the *Kawan* specification make it clear the loyalty program application is resident only on the smart card, not on a front end computer integrated into a point of sale terminal.

Earlier Office actions have stated that the *Kawan* specification "discloses that loyalty rules on front end are updated from and synchronized with the back end and that the front end rules are utilized for processing transactions at the POS terminal." That statement, while possibly technically accurate, is extremely misleading since it implies that the "front end" in the *Kawan* system is integrated into a point of sale terminal when that is not the case. In actual fact, the *Kawan* "front end" is the loyalty application resident only on a smart card, not on a merchant terminal which might read that card.

Each of the claims on appeal makes it clear that a local copy of loyalty program rules is maintained in a point-of-sale computer. Neither *Wong* or *Kawan* discloses or suggests this. By

Each of the claims on appeal makes it clear that a local copy of loyalty program rules is maintained in a point-of-sale computer. Neither *Wong* or *Kawan* discloses or suggests this. By extension, a hypothetical combination of the two references would neither disclosure or suggest it.

It is submitted that the claims on appeal clearly distinguish over *Wong, Kawan* or any hypothetical combination of the two. The rejection of the claims should be reversed.

Respectfully Submitted,

Gerald R. Woods, Reg. No. 24,144
Attorney of Record

IBM Corporation
T81/503
PO Box 12195
Research Triangle Park, NC 27709
919-543-7204 FAX 919-254-4330

Appendix of Claims on Appeal (37 CFR 41.37(viii))

1. A computer system comprising

    a) a back-end computer having a first database for storing loyalty rules and user data;

    b) a point of sale terminal including a front-end computer having a second database for storing loyalty rules and for storing user data and a spreadsheet engine for processing user transaction data in accordance with the loyalty rules; and

    c) a communication link connecting the back-end computer and the front-end computer for synchronization of the first and the second databases.

3. The computer system of claim 1 wherein the point-of-sale terminal includes a computer program routine for triggering operation of the spreadsheet engine and a payment application program.

4. The computer system of claim 3 wherein the point-of-sale terminal and the front-end computer are integrated into one device having a common display unit.

5. The computer system of claim 4 further comprising:

    a) a marketing computer having a third database for receiving and storing loyalty rules and test user data, a second spreadsheet engine having a graphical user interface; and

    b) a communication link connecting the marketing computer and the back-end computer for updating the loyalty rules stored in the first database.

6. A point of sale computer including a front-end computer device having a database for storing loyalty rules and user data and a spreadsheet engine for receiving and processing of transaction data of a user in accordance with the loyalty rules, the front-end computer device being adapted to be coupled with a back-end computer device via a communications link to synchronize its database with a corresponding database in the back-end computer device.

7. The point of sale terminal of claim 6 wherein said front-end computer device further includes a communication module.

8. A point-of-sale terminal as set forth in claim 6 or 7 and further having a computer program routine for triggering operation of the spreadsheet engine and a payment application program.

9. A method for performing a transaction comprising the steps of:

    a) inputting user-identifying data into a front-end computer device integrated into a point of sale terminal and having a database for storing loyalty rules and user data and a spreadsheet engine for receiving and processing of transaction data;

    b) inputting transaction data into the front-end computer device;

    c) processing the transaction data in the spreadsheet engine in accordance with a loyalty rule; and

    d) synchronizing the front-end computer device with a back-end computer.

10. The method for performing a transaction in accordance with claim 9 further comprising the steps of:

    a) determining a price to be paid by a customer in accordance with the loyalty rule; and

    b) displaying the price on the display of the point-of-sale terminal.

Evidence Appendix ((37 CFR 41.37(ix))

None

Related Proceeding Appendix (37 CFR 41.37(x))

None